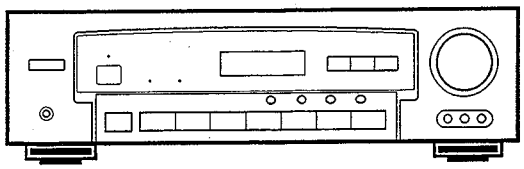
TEAC



SERVICE MANUAL

AG-V4200/AG-SV5150

Audio/Video Surround Receiver

NOTES

- PC boards shown are viewed from parts side.
- The parts with no reference number or no parts number in the exploded views are not supplied.
- As regards the resistors and capacitors, refer to the circuit diagrams contained in this manual.
- ⚠ Parts marked with this sign are safety critical components.
  They must be replaced with identical components - refer to the appropriate parts list and ensure exact replacement.
- Parts of [ ] mark can be used only with the version designated.
  [US]:U.S.A. [C]:CANADA [GE]:GENERAL EXPORT [E]:EUROPE [D]:U.K.

Effective : February, 1996

D00218300A

1 SPECIFICATIONS

Amplifier Section

Output Power (Front):
F.T.C. Rating:
60 watts RMS per channel minimum, both channels driven into 8 ohms from 20 Hz to 20 kHz with no more than 0.5% total harmonic distortion
Dynamic Power (4/6/8 ohms): 100/85/65 watts
DIN Power: 65 watts/8 ohms
Surround Output Power (1% THD, 1 kHz):
55 watts × 3 (Front L, Front R, Center)
36 watts (Rear)
Total Harmonic Distortion (Front):
0.07% (at 50 watts, 1 kHz)
Intermodulation Distortion (Front):
0.03% (at 40 watts)
Delay Time:
DOLBY PRO LOGIC: 20 ms
Input Sensitivity/Impedance:
LINE*: 170 mV/47 k ohms
Frequency Response:
LINE*: 10 Hz – 50 kHz, +1/ – 3 dB
Signal-to-Noise Ratio:
LINE*: 73 dB
Tone Control:
BASS: ± 10 dB at 50 Hz
TREBLE: ± 10 dB at 10 kHz

FM Tuner Section

(without notes 98.1 MHz, 65 dBf)
Tuning Range:
87.5 MHz – 108.0 MHz (100 kHz steps)
(U.S.A./Canada/General Export)
87.50 MHz – 108.00 MHz (50 kHz steps)
(Europe)
Usable Sensitivity (IHF):
Mono: 13.2 dBf (U.S.A./Canada/General Export)
Mono: 16.2 dBf (Europe)
50 dB Quieting Sensitivity:
Mono: 18 dBf (U.S.A./Canada/General Export)
Mono: 20 dBf (Europe)
Stereo: 38 dBf (U.S.A./Canada/General Export)
Stereo: 42 dBf (Europe)
Capture Ratio:
1.5 dB (U.S.A./Canada/General Export)
2.5 dB (Europe)
Image Rejection Ratio:
40 dB (U.S.A./Canada/General Export)
80 dB (Europe)
AM Suppression Ratio: 60 dB
RF Intermodulation Ratio: 65 dB
Total Harmonic Distortion (1 kHz):
Mono: 0.2%
Stereo: 0.4%
Frequency Response:
30 Hz – 15 kHz, +0.5/ – 1.5 dB
Stereo Separation (1 kHz): 35 dB
Signal-to-Noise Ratio:
Mono: 70 dB
Stereo: 65 dB

AM Tuner Section

Tuning Range:
530 kHz – 1,710 kHz (10 kHz steps)
(U.S.A./Canada/General Export)
522 kHz – 1,611 kHz (9 kHz steps)
(Europe)
Usable Sensitivity: 54 dB/m
Total Harmonic Distortion:
1% at 85 dB/m
Signal-to-Noise Ratio:
45 dB at 85 dB/m

Video Section

Input Sensitivity/Impedance:
1.0 Vp-p/75 ohms
Output Level/Impedance:
1.0 Vp-p/75 ohms
Frequency Response:
5 Hz – 6 MHz, – 3 dB
Signal-to-Noise Ratio:
60 dB (1 kHz, HPF IN)

General

Power Requirements:
120 V AC, 60 Hz (U.S.A./Canada)
230 V AC, 50 Hz (Europe)
115/230 V AC, 50-60 Hz (General Export)
Power Consumption:
1.5 A (U.S.A./Canada)
350 W (Europe)
190 W (General Export)
AC Outlet:
Switched × 1, 100 W max. (1 A max.)
(U.S.A./Canada)
Switched × 1, 100 W max.
(Europe)
Dimensions (W x H x D):
440 × 125 × 280 mm
(17-5/16″ × 4-15/16″ × 11)
Weight (net): 6.2 kg (13-11/16 lbs.)
Standard Accessories:
AM Loop Antenna × 1
FM "T" Type Antenna × 1
Remote Control Unit (UR-407) × 1
Battery ("AA", "R06", SUM-3) × 2
Matching Transformer (300 ohms to 75 ohms) × 1
(Europe)

* LINE means CD, VCR 1, VCR 2, AUX and TAPE.
- Improvements may result in specifications and features changing without notice.
- Illustrations may differ slightly from production models.

2 ADJUSTMENT AND CHECKS

Adjustments and test points

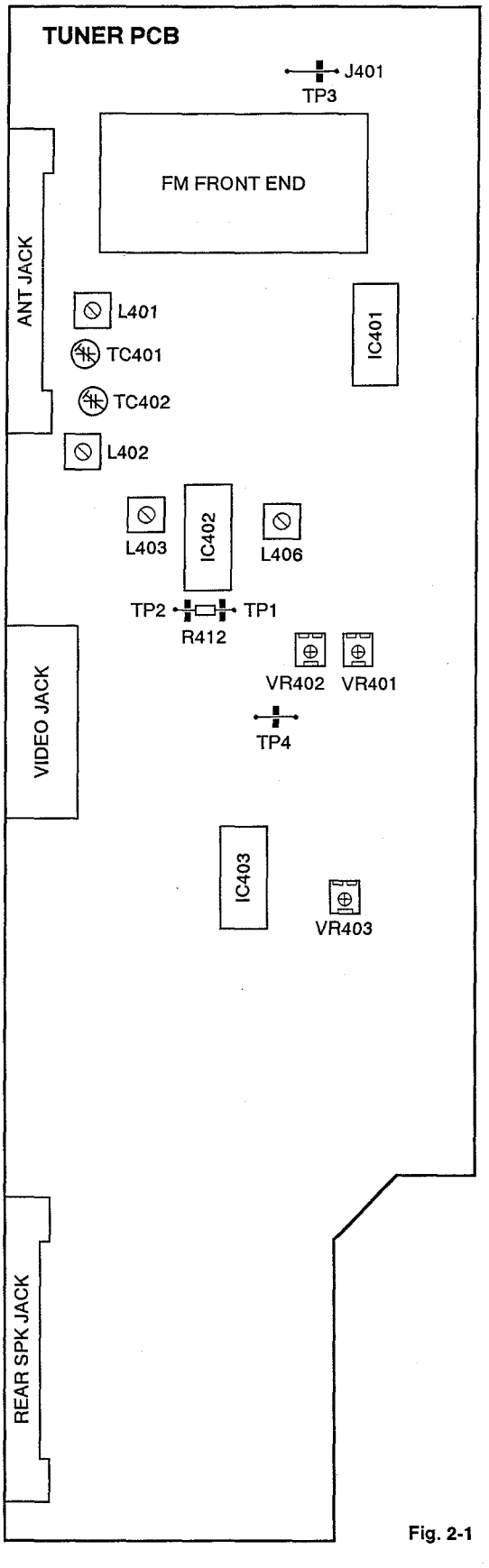


Fig. 2-1

2-1 AM OSC. tracking adjustment

1. Set the unit to "AM" position.
2. Connect the DC voltmeter to **TP3** in Fig. 2-1.
3. Place the radio frequency display to 530 kHz.
4. Adjust **L402** until DC voltmeter indicates **DC 1.2V ± 0.2V**.
5. Place the radio frequency display to 1,710 kHz.
6. Adjust **TC402** until DC voltmeter indicates **DC 9.0V ± 0.2V**.
7. Repeat step 3, 4, 5 and 6.

2-2 AM IF adjustment

1. Test equipment connections are shown in Fig. 2-2.
2. Set the unit to "AM" position.
3. Place the radio frequency and signal generator setting to 1,000 kHz.
4. Adjust **L406** for maximum output.

2-3 AM RF adjustment

1. Test equipment connections are shown in Fig. 2-2.
2. Set the unit to "AM" position.
3. Place the radio frequency and signal generator setting to 1,400 kHz.
4. Adjust **TC401** for maximum output.
5. Place the radio frequency and signal generator setting to 600 kHz.
6. Adjust **L401** for maximum output.
7. Repeat step 3, 4, 5 and 6.

AM signal generator condition
Modulation: 30%
Modulation frequency: 400 Hz

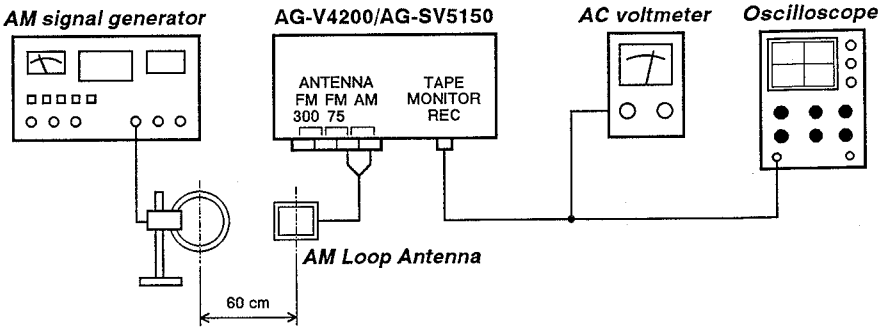


Fig. 2-2

2-4 AM TUNED level adjustment

1. Place the radio frequency and signal generator setting to 1,000 kHz.
2. Connect the DC voltmeter to **TP4** in Fig. 2-1.
3. Adjust **VR401** until DC voltmeter indicates **DC 0~50 mV**.

AM signal generator condition
Output level: 60 dB/m

2-5 FM MONO IF distortion adjustment

1. Test equipment connections are shown in Fig. 2-3.
2. Set the unit to "FM" position.
3. Place the radio frequency and signal generator setting to 98.1 MHz.
4. Adjust **L403** until DC voltmeter indicates **DC 0 ± 50mV**.
5. Repeat step 4.

FM signal generator condition
Modulation: 100% (75 kHz div.)
Modulation frequency: 1 kHz
Output level: 65 dBf

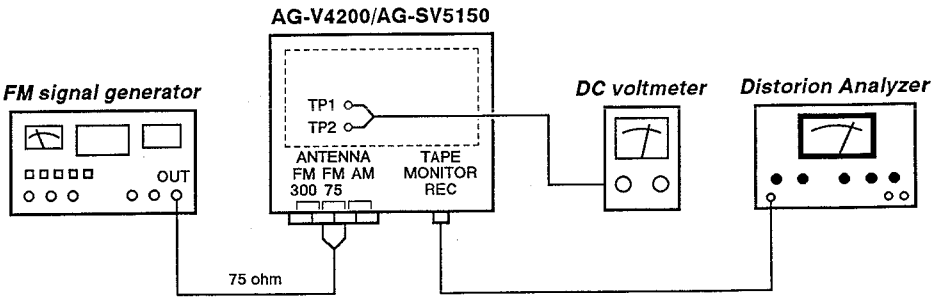


Fig. 2-3

2-6 FM STEREO separation adjustment

1. Test equipment connections are shown in Fig. 2-4.
2. Set the unit to "FM STEREO" position.
3. Place the radio frequency and signal generator setting to 98.1 MHz.
4. Adjust **VR403** so that R channel output is minimized when stereo modulator is in "L" (L channel modulation) mode.
5. Readjust **VR403** so that L channel output is minimized when stereo modulator is in "R" (R channel modulation) mode.

FM signal generator condition
Modulation:
"L" mode or "R" mode 45%,
Pilot 10%
Modulation frequency:
1 kHz, Pilot 19kHz
Output level: 65 dBf

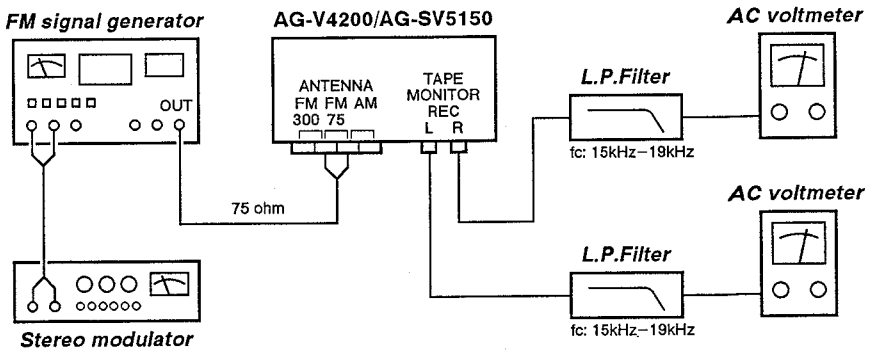


Fig. 2-4

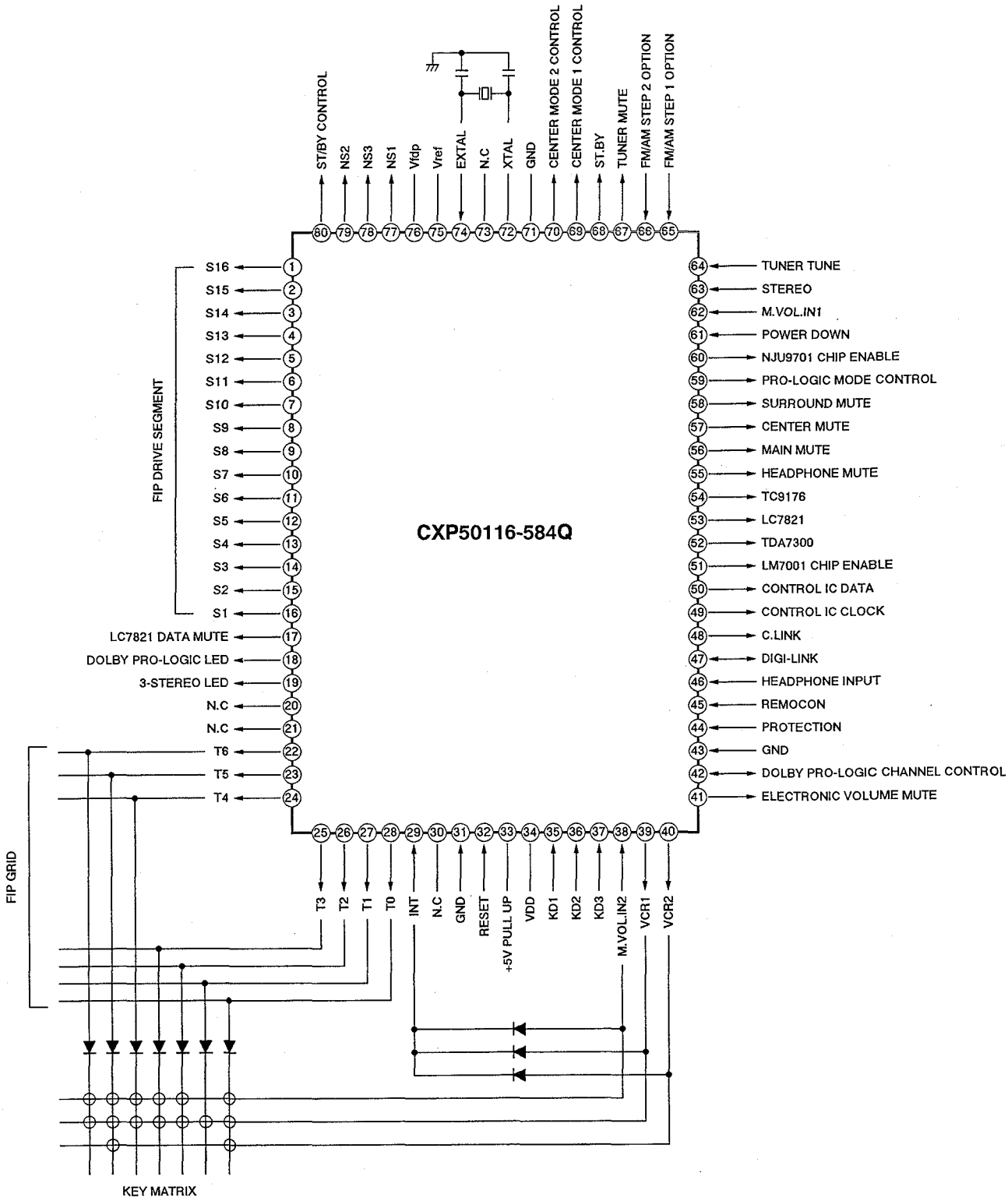
2-7 FM TUNED level adjustment

1. Place the radio frequency and signal generator setting to 98.1 MHz.
2. Connect the DC voltmeter to **TP4** in Fig. 2-1.
3. Adjust **VR402** until DC voltmeter indicates **DC 0~50 mV**.

FM signal generator condition
Output level: 20 dBf

3 MICROPROCESSOR

3-1 Pin assignment

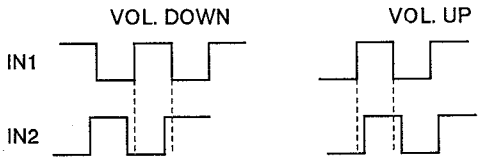


3-2 Pin functions

<table>
<tr><th>Pin No.</th><th>Symbol</th><th>Description</th></tr>
<tr><td>1~16</td><td>S16~S1</td><td>Segment signal output for FIP.</td></tr>
<tr><td>17</td><td>DATA MUTE</td><td>Mute signal output to LC7821.</td></tr>
<tr><td>18</td><td>DOLBY</td><td>Output for driving DOLBY LED.</td></tr>
<tr><td>19</td><td>3-ST</td><td>Output for driving 3-STEREO LED.</td></tr>
<tr><td>20~21</td><td>NC</td><td>Not used.</td></tr>
<tr><td>22~28</td><td>T6~T0</td><td>Grid signal output for FIP.</td></tr>
<tr><td>29</td><td>INT</td><td>Data input of K0~K6 for key scan.</td></tr>
<tr><td>30</td><td>NC</td><td>Not used.</td></tr>
<tr><td>31</td><td>GND</td><td>Ground</td></tr>
<tr><td>32</td><td>RESET</td><td>Input for resetting CPU. (At “L”, it is active.)</td></tr>
<tr><td>33</td><td>NC</td><td>Not used.</td></tr>
<tr><td>34</td><td>VDD</td><td>+5V power supply</td></tr>
<tr><td>35~37</td><td>KEY INPUT</td><td>Data input of K0~K6 for key scan.</td></tr>
<tr><td>38</td><td>M. VOL. IN2</td><td>Input for main volume.</td></tr>
<tr><td>39/40</td><td>VCR1/VCR2</td><td>Control data output for selecting VCR1 or VCR2 video signal.

According to each made, data output is as follows.
<table><tr><th>MODE</th><th>VID 1</th><th>VID 2</th><th>REMARKS</th></tr><tr><td>VCR 1</td><td>H</td><td>L</td><td rowspan="2">Initial settings</td></tr><tr><td>VCR 2</td><td>L</td><td>H</td></tr><tr><td>OTHERS</td><td>△</td><td>△</td><td>△: Previous state</td></tr></table>* Last memory function is available.</td></tr>
<tr><td>41</td><td>EVC. MUTE</td><td>Mute signal output to prevent click noise when operating electronic VOL.</td></tr>
<tr><td>42</td><td>CH. MODE</td><td>Port for settings of PRO-LOGIC and 3-STEREO mode.

According to each made, data output is as follows.
<table><tr><th>MODE</th><th>OUTPUT</th></tr><tr><td>3-STEREO</td><td>High impedance</td></tr><tr><td>PRO-LOGIC</td><td>H</td></tr><tr><td>OTHERS</td><td>L</td></tr></table></td></tr>
<tr><td>43</td><td>GND</td><td>Ground</td></tr>
<tr><td>44</td><td>PROT.</td><td>Signal input for protection.
When “L” is input, it is changed to STAND BY.
(But for first 3 second, PROTECTION is not checked.)</td></tr>
<tr><td>45</td><td>RMC</td><td>Input for remocon data. (At “L”, it is active.)</td></tr>
<tr><td>46</td><td>H/P IN</td><td>When inserting headphone, “H” is input.</td></tr>
<tr><td>47</td><td>D. LINK</td><td>Input/output for controlling DIGI-LINK.</td></tr>
<tr><td>48</td><td>C. LINK</td><td>Not used.</td></tr>
<tr><td>49/50</td><td>CLK/DATA</td><td>CLOCK/DATA output for TDA7300, TC9154, LC7821, NJU9701 and LM7001.</td></tr>
<tr><td>51</td><td>CE1</td><td>Chip enable output for LM7001.</td></tr>
<tr><td>52</td><td>CE2</td><td>Chip enable output for TDA7300.</td></tr>
<tr><td>53</td><td>CE3</td><td>Chip enable output for LC7821.</td></tr>
<tr><td>54</td><td>CE4</td><td>Chip enable output for TC9176.</td></tr>
</table>

<table>
<tr><th>Pin No.</th><th>Symbol</th><th>Description</th></tr>
<tr><td>55</td><td>H/P MUTE</td><td>Output for headphone mute. “H” is outputted under the following conditions.
1. When the power is on or off.
2. When selecting the input function.
3. When “H” is inputted to H/P input.
4. When “L” is inputted to “PROT” of CPU.
5. “ −∞ ” mute signal is transferred from the commander.</td></tr>
<tr><td>56</td><td>MAIN MUTE</td><td>Output for main mute. “H” is outputted under the following conditions.
1. When the power is on or off.
2. When “H” is inputted to H/P input.
3. When “L” is inputted to “PROT” of CPU.
4. “ −∞ ” mute signal is transferred from the commander.</td></tr>
<tr><td>57</td><td>CENTER MUTE</td><td>Output for center mute. “H” is outputted under the following conditions.
1. When the power is on or off.
2. When the center mode is on or off.
3. When selecting center mode.
4. When the test tone mode is on or off or When the channel is change in the test tone mode.
5. When “L” is inputted to “PROT” of CPU.
6. “ −∞ ” mute signal is transferred from the commander.</td></tr>
<tr><td>58</td><td>SURR. MUTE</td><td>Output for SURR. mute. “H” is outputted under the following conditions.
1. When the power is on or off.
2. When selecting surround mode.
3. When the test tone mode is on or off or When the channel is change in the test tone mode.
4. When “H” is inputted to H/P input.
5. When “L” is inputted to “PROT” of CPU.
6. “ −∞ ” mute signal is transferred from the commander.</td></tr>
<tr><td>59</td><td>PRO</td><td>Output for controlling in the surround mode.
<table><tr><td>SURROUND MODE</td><td>PRO 1</td></tr><tr><td>PRO-LOGIC, 3-STEREO</td><td>H</td></tr><tr><td>SURR. OFF</td><td>L</td></tr></table></td></tr>
<tr><td>60</td><td>CE5</td><td>Chip enable output for NJU9701.</td></tr>
<tr><td>61</td><td>PD</td><td>Input for power down. (At “L”, it is active.)</td></tr>
<tr><td>62</td><td>M. VOL. IN1</td><td>Input for main volume up/down.
 
</td></tr>
<tr><td>63</td><td>STEREO</td><td>Input for lighting the “STEREO” indicator. (At “L”, it is active.)</td></tr>
<tr><td>64</td><td>TUNED</td><td>Input for detecting station during tuning.
If “L” is inputted during tuning, tuning stops at that frequency.</td></tr>
<tr><td>65/66</td><td>A.STEP/F.STEP</td><td>According to region, input for selecting the frequency bands and steps of FM and AM.

Setting are as follows.
<table><tr><td>REGION</td><td>FREQUENCY</td><td>STEPS</td><td>F. STEP</td><td>A. STEP</td></tr><tr><td>U.S.A.</td><td>FM: 87.5~108.0 MHz
AM: 530~1710 kHz</td><td>100 kHz
10 kHz</td><td>H</td><td>H</td></tr><tr><td>EUROPE</td><td>FM: 87.50~108.00 MHz
AM: 522~1611 kHz</td><td>50 kHz
9 kHz</td><td>L</td><td>L</td></tr></table></td></tr>
</table>

Pin No.	Symbol	Description
67	T. MUTE	Output for tuner mute.
68	ST. BY	Output for driving STAND BY LED. (At "H", it is active.)
69/70	CM1/CM2	Control data output for center mode in the DOLBY PRO-LOGIC and 3-STEREO mode. Setting are as follows. CENTER MODE / CM1 / CM2 NORMAL, OFF: L / H WIDE: H / L PHANTOM: L / L
71	Vss	This pin provides the ground potential.
72	XTAL	Output pin serve for connecting a clock oscillator crystal.
73	NC	Not used.
74	EXTAL	Input pin serve for connecting a clock oscillator crystal.
75	V_{ref}	Not used.
76	V_{fdp}	– 30V power supply for FIP.
77~79	NS1~NS3	Control data output for selecting channel in the test tone mode. Setting are as follows. SELECTION / NS1 / NS2 / NS3 TEST TONE OFF: H / △ / △ LEFT: L / L / L CENTER: L / L / H RIGHT: L / H / L SURROUND: L / H / H △ : previous state
80	STAND BY	When the power is on, control data output is "H". When the power is off, control data output is "L". (and last memory function is activated.)

3-3 Key matrix

IN \ OUT	K. SCAN 0 PIN 28	K. SCAN 1 PIN 27	K. SCAN 2 PIN 26	K. SCAN 3 PIN 25	K. SCAN 4 PIN 24	K. SCAN 5 PIN 23	K. SCAN 6 PIN 22
KEY IN 1 PIN 35	TAPE MONITOR	AM	AUX/TV	VCR2	VCR1	SURROUND MODE	FM
KEY IN 2 PIN 36	MODE	MEMORY	–	–	DOWN	–	–
KEY IN 3 PIN 37	–	–	CD	UP	BASS	TREBLE	BALANCE

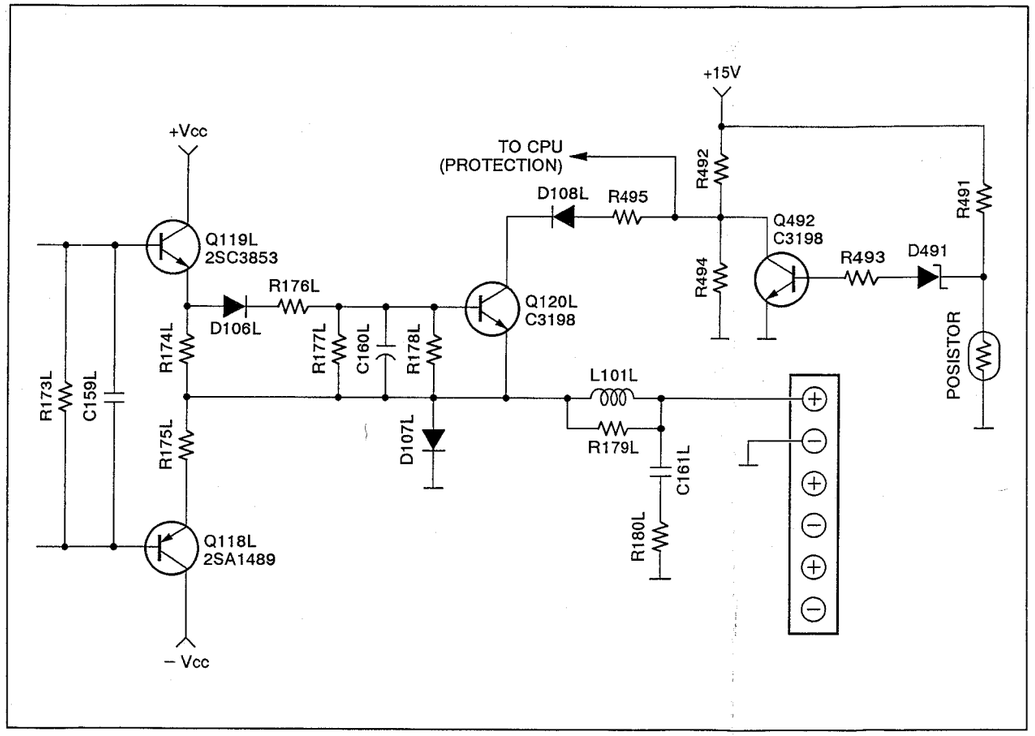
4 PROTECTION CIRCUITS

4-1 Speaker protection circuits

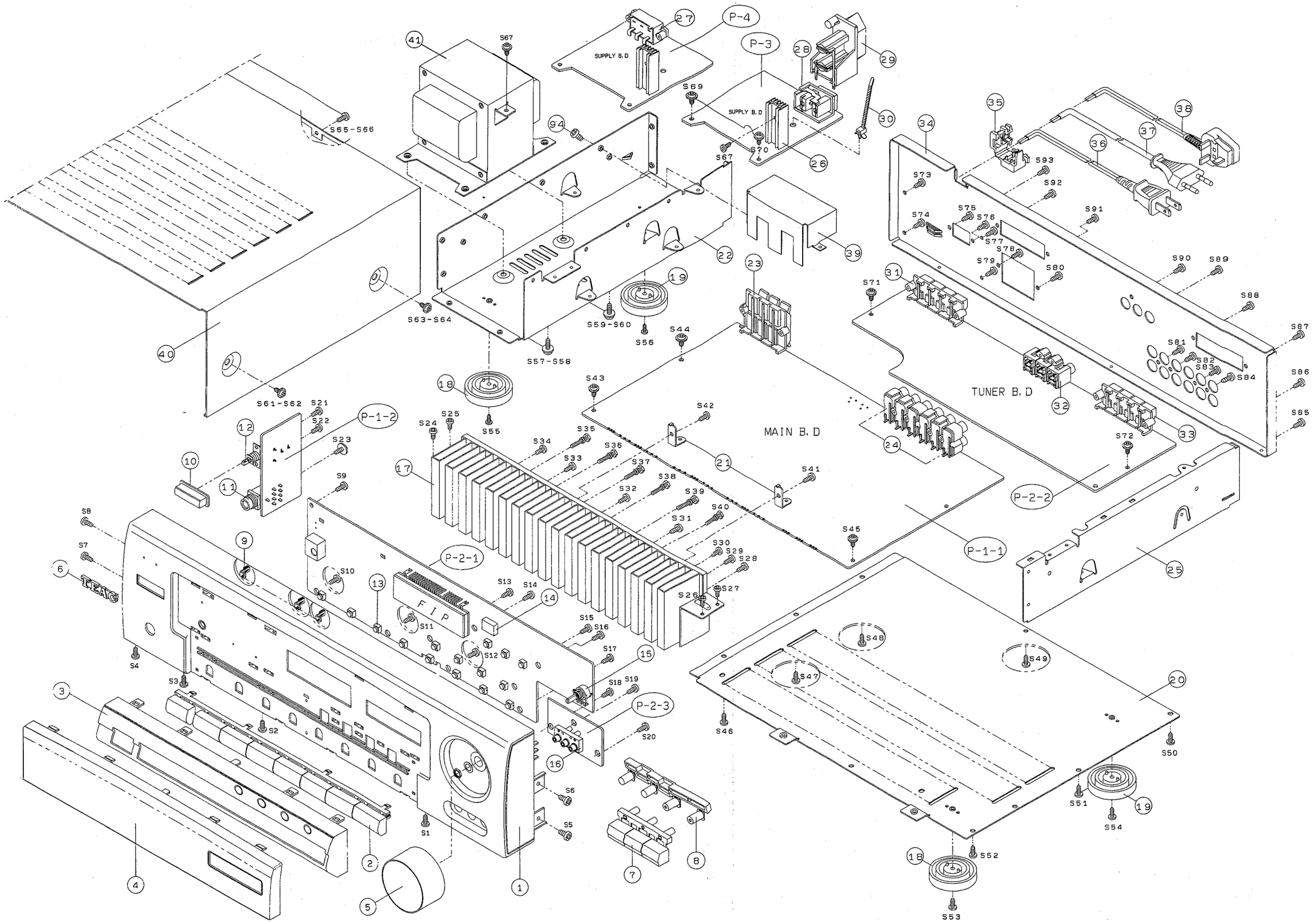
The CPU protects both this unit and the speakers when an abnormally high current flows in Q119L/R and Q118L/R due to excessive input drive, too low of load impedance or short of the speaker terminals. If current increase is excessive, the voltage across R174L/R turns on Q120L/R.
If makes the protection port of the CPU to low state, and the CPU turns unit to stand by state.

4-2 Thermal protection circuits

This unit has a overload the thermal protection circuits to guard against abnormal operation. When the temperature of TRANS POSISTOR installed with the main transformer rises abnormally, the resistance of the posistor becomes larger and Q492 is turned on. It makes the protection port of the CPU to low state, and the CPU turns unit to stand by state.



5 EXPLODED VIEWS AND PARTS LIST



EXPLODED VIEW

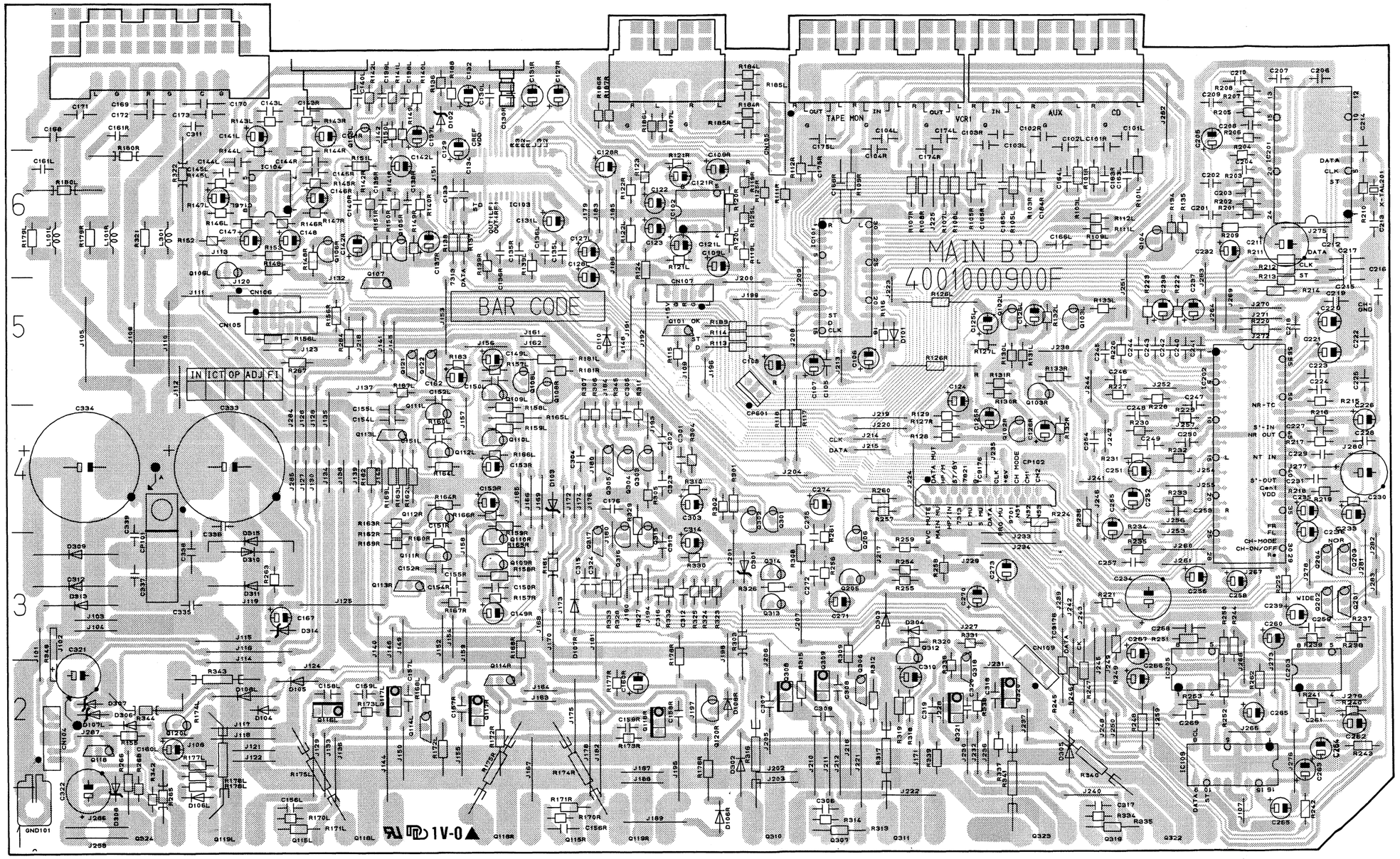
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
1	9A05814600	PANEL, FRONT	AG-V4200
	9A05819500	PANEL, FRONT	AG-SV5150
2	9A05814700	BUTTON FUNCTION, 8KEY	
3	9A05814900	CAP FRONT DECORATION	
4	9A05814800	WINDOW DISPLAY	
5	9A05817100	KNOB MAIN VOLUME	
6	9A05816800	BADGE	
7	9A05816900	BUTTON TACT, 3KEY	
8	9A05817000	BUTTON TACT, 4KEY	
9	9A05817300	INDICATOR FUNCTION	
10	9A05817200	BUTTON POWER	
11	9A04805600	JACK MIC	
12	⚠ 9A05831200	SWITCH PUSH, POWER	
13	9A04220300	SW, SKHV10910D01	
14	9A04945000	SPONGE, FL	
15	9A05814200	SWITCH ENCODER WITH NUT	
16	9A05814100	JACK RCA, 3P GOLD	
17	9A05816500	HEATSINK POWER	
18	9A05816000	FOOT, HOT-STAMPING	
19	9A04192200	FOOT, BLACK	
20	9A05816100	COVER BOTTOM	
21	9A04944500	BRACKET, PCB	
22	9A05816200	FRAME LEFT	
23	9A04938900	TERMINAL SPEAKER, 6P	
24	9A04201600	JACK RCA, 6P	
25	9A05816300	FRAME RIGHT	
26	9A04202500	HEAT SINK, REG TR	
27	⚠ 9A04544900	VOLTAGE SELECTOR [US, GE]	
28	⚠ 9A05819100	OUTLET, 1P [US, C]	
29	⚠ 9A04544800	OUTLET [E, D]	
30	9A04303600	LOCKING TIE	
31	9A04213800	TERMINAL SPEAKER, 4P	
32	9A04939800	JACK RCA, 3P	
33	9A04939000	ANTENNA TERMINAL [US, C, GE]	
	9A05813600	ANTENNA TERMINAL, 4P [E, D]	
34	9A05814300	CHASSIS BACK [E, D]	AG-V4200
	9A05818200	CHASSIS BACK [US, GE]	AG-V4200
	9A05819200	CHASSIS BACK [US, C]	AG-V4200
	9A05819400	CHASSIS BACK	AG-SV5150
35	⚠ 9A05816400	STOPPER CORD	
36	⚠ 9A04194200	AC CORD [US, C, GE]	
37	⚠ 9A04810900	AC CORD [D]	
38	⚠ 9A05813400	AC CORD [E]	
39	9A05814500	COVER INSULATION [US, C, GE, E]	
40	9A05814400	COVER TOP	
41	⚠ 9A05809700	POWER TRANSFORMER, 230V [E, D]	
	⚠ 9A05817600	POWER TRANSFORMER, 115/230V [US, GE]	
	⚠ 9A05818800	POWER TRANSFORMER, 120V [US, C]	
	9A05815100	ASS'Y POSISTOR, 180MM	

EXPLODED VIEW

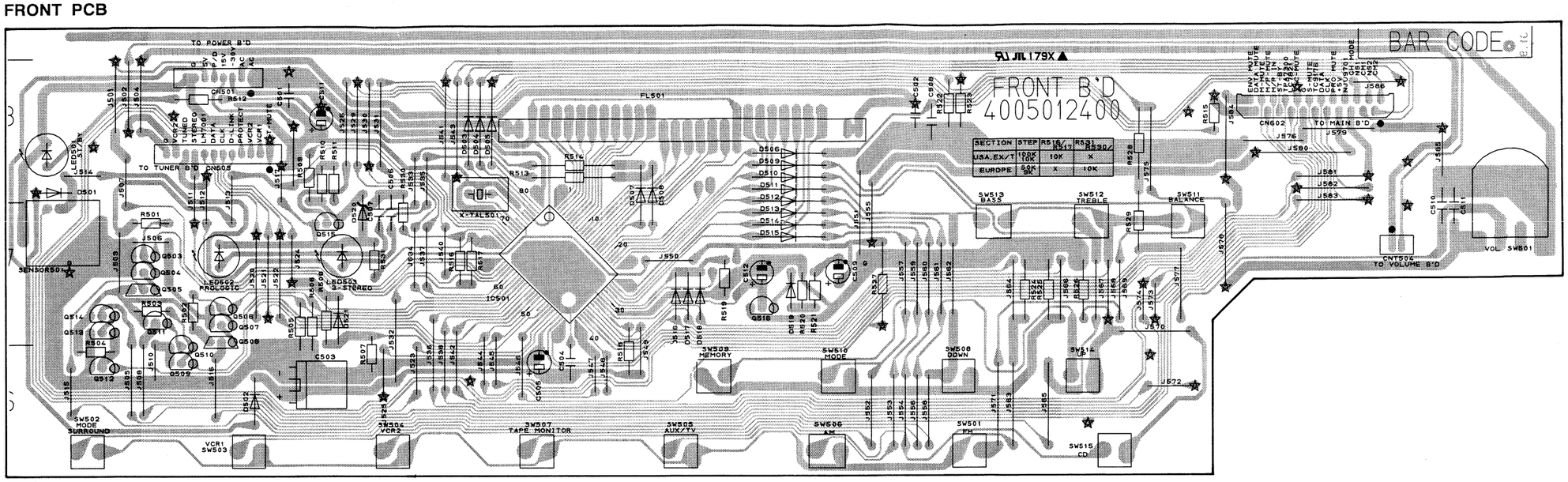
REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
P-1-1	9A05818300	ASS'Y PCB, MAIN [US, C, GE]	
	9A05818310	ASS'Y PCB, MAIN [E, D]	
P-1-2	9A05815700	ASS'Y PCB, POWER S/W	
P-2-1	9A05818500	ASS'Y PCB, FRONT [US, C, GE]	
	9A05818510	ASS'Y PCB, FRONT [E, D]	
P-2-2	9A05818400	ASS'Y PCB, TUNER [US, C, GE]	
	9A05818410	ASS'Y PCB, TUNER [E, D]	
P-2-3	9A05818600	ASS'Y PCB, VIDEO [US, C, GE]	
	9A05818610	ASS'Y PCB, VIDEO [E, D]	
P-3	9A05839500	ASS'Y PCB, POWER [US, C]	
	9A05839510	ASS'Y PCB, POWER [E, D]	
P-4	9A05839520	ASS'Y PCB, POWER [US, GE]	
S1-S22	9A04192700	SCREW, #2BTC3X8B	
S23	9A05816600	SCREW, MECHA YELLOW	
S24-S34	9A04192700	SCREW, #2BTC3X8B	
S35-S40	9A05816700	SCREW, HEATSINK YELLOW	
S41-S42	9A04192700	SCREW, #2BTC3X8B	
S43-S45	9A04192900	SCREW, #2WPTC3X8Y	
S46-S52	9A04192800	SCREW, #2BTC3X6B	
S53-S56	9A04192700	SCREW, #2BTC3X8B	
S57-S64	9A04303800	SCREW, BSAM M4X8B	
S65-S66	9A04192700	SCREW, #2BTC3X8B	
S67	9A04192900	SCREW, #2WPTC3X8Y	
S68	9A04192700	SCREW, #2BTC3X8B	
S69-S72	9A04192900	SCREW, #2WPTC3X8Y	
S73-S74	9A04192700	SCREW, #2BTC3X8B	
S75-S76	9A04194500	SCREW, #1PT3X10B	
S77-S78	9A04192700	SCREW, #2BTC3X8B	
S79-S84	9A04194500	SCREW, #1PT3X10B	
S85-S86	9A04192700	SCREW, #2BTC3X8B	
S87-S93	9A04194500	SCREW, #1PT3X10B	
S94	9A04192700	SCREW, #2BTC3X8B [US, C, GE, E]	

6 PC BOARDS AND PARTS LIST

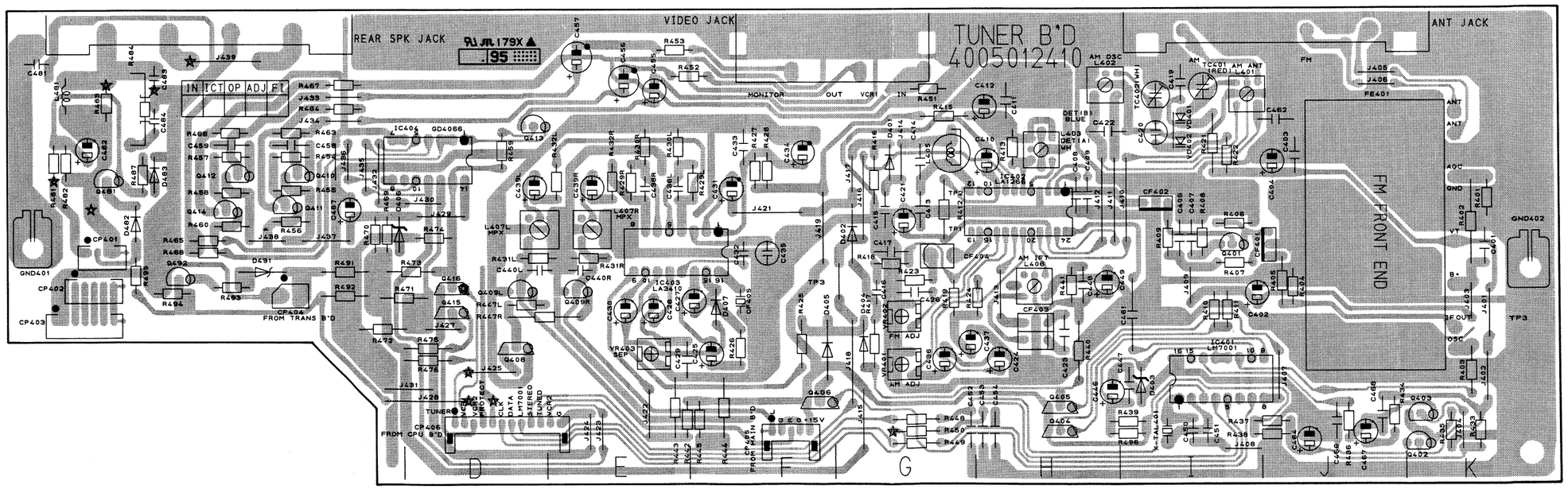
MAIN PCB



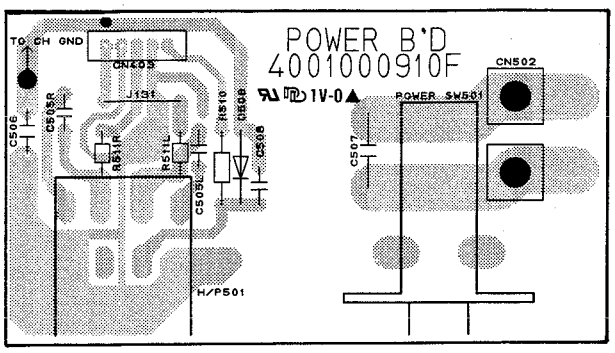
FRONT PCB



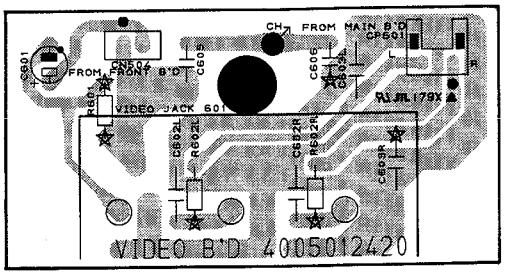
TUNER PCB



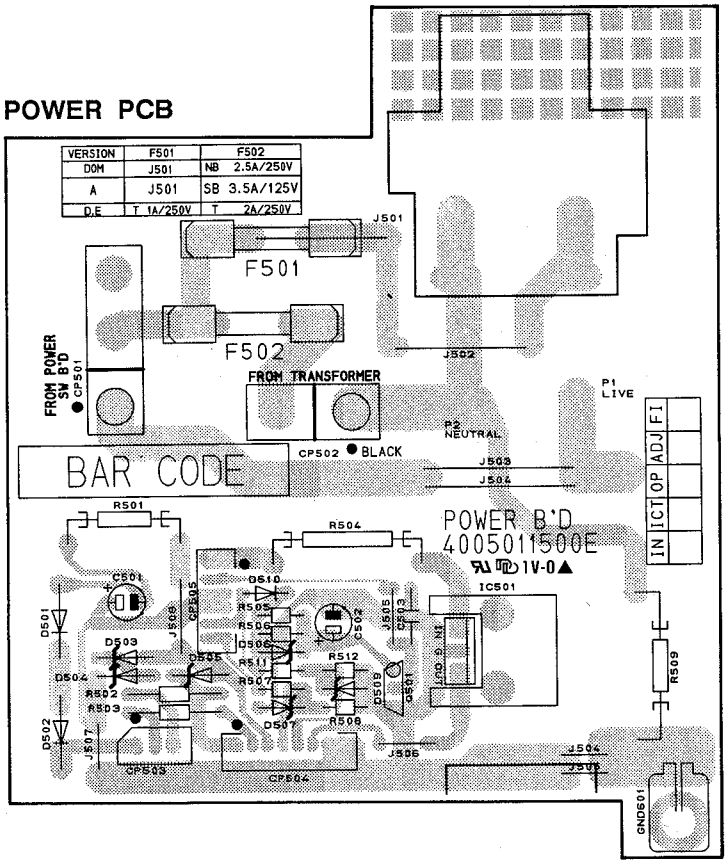
POWER SW PCB



VIDEO PCB



POWER PCB



MAIN PCB ASSY

REF. NO.		PARTS NO.	DESCRIPTION
		9A05818300	ASS'Y PCB, MAIN [US, C, GE]
		9A05818310	ASS'Y PCB, MAIN [E, D]
		9A05812600	P. C. BOARD, MAIN
		9A04305300	GROUND PLATE, 1P
		9A04938900	TERMINAL SPEAKER, 6P
		9A04201600	JACK RCA, 6P
CN104		9A05830400	LEAD ASS'Y, 6P 240MM
CN106		9A05830500	LEAD ASS'Y, 7P 120MM
CN107		9A05830300	LEAD ASS'Y, 5P 120MM
CN109		9A05830200	LEAD ASS'Y, 4P 300MM
CP101		9A04201300	CONNECTOR, AC 3P
CP102		9A05831100	WAFER, FPC 23P
CP601		9A05830100	LEAD ASS'Y, 3P 300MM
C333/C334	⚠	9A05828100	C, ELECT HS 4700UF 50V
C335-C337	⚠	9A04209200	C, MYLAR 0. 01UF/100V J
C338/C339	⚠	9A05811200	C, CERAMIC 0. 01UF 400V
D101		9A04202800	DIODE, 1N4148M
D102		9A04219100	ZENER DIODE, UZ 9. 1BSC
D103		9A04932700	ZENER DIODE, UZ27. 0BSC
D104/D105		9A04202800	DIODE, 1N4148M
D106L/R		9A04202800	DIODE, 1N4148M
D107L/R		9A04202800	DIODE, 1N4148M
D108L/R		9A04202800	DIODE, 1N4148M
D110		9A04202800	DIODE, 1N4148M
D301		9A04932700	ZENER DIODE, UZ27. 0BSC
D302-D305		9A04202800	DIODE, 1N4148M
D306/D307		9A04227600	ZENER DIODE, UZ 7. 5BSC
D308		9A04932800	ZENER DIODE, UZ16. 0BSB
D309-D312	⚠	9A04211500	DIODE, 1N5402
D313		9A04203500	DIODE, 1N4002
D314		9A04932800	ZENER DIODE, UZ16. 0BSB
D315		9A04203500	DIODE, 1N4002
IC101		9A04199600	IC, LC7821
IC102		9A04199800	IC, KIA75559P(KIA4559P)
IC103		9A05826700	IC, TDA7313
IC104		9A04199800	IC, KIA75559P(KIA4559P)
IC109		9A04223400	IC, TC9176P
IC201		9A04931800	IC, NJU9701D
IC202		9A04931900	IC, NJM2177L
IC203		9A04199800	IC, KIA75559P(KIA4559P)
IC205		9A05826600	IC, KIA4559P/KIA75559P
L101L/R		9A04200100	COIL INDUCTOR, 0. 5MH
L301		9A04200100	COIL INDUCTOR, 0. 5MH
Q101		9A04203400	TR, DTC114YS
Q102L/R		9A04203000	TR, KTC1815Y
Q103L/R		9A04214900	TR, KTD1302B
Q104		9A04221900	TR, KTA1015Y
Q106L/R		9A04214900	TR, KTD1302B
Q108L/R		9A04214900	TR, KTD1302B
Q109L/R		9A04203300	TR, KTC2240BL

MAIN PCB ASSY

REF. NO.		PARTS NO.	DESCRIPTION
Q110L/R		9A04203300	TR, KTC2240BL
Q111L/R		9A04203000	TR, KTC1815Y
Q112L/R		9A04203000	TR, KTC1815Y
Q113L/R		9A04932100	TR, KTA1024
Q114L/R		9A04932200	TR, KTC3206
Q115L/R		9A04199100	TR, 2SC4137
Q116L/R		9A05808800	TR, KSC2690-Y
Q117L/R		9A05808700	TR, KSA1220A-Y
Q118		9A04203400	TR, DTC114YS
Q118L/R	⚠	9A05826400	TR, 2SA1489
Q119L/R	⚠	9A05826500	TR, 2SC3853
Q120L/R		9A04203000	TR, KTC1815Y
Q121		9A05809200	TR, KRA107S
Q122		9A04203400	TR, DTC114YS
Q201		9A05809200	TR, KRA107S
Q202		9A04203400	TR, DTC114YS
Q203		9A05809200	TR, KRA107S
Q204		9A04203400	TR, DTC114YS
Q205		9A04214900	TR, KTD1302B
Q206		9A04214900	TR, KTD1302B
Q301/Q302		9A04203300	TR, KTC2240BL
Q303/Q304		9A04203000	TR, KTC1815Y
Q305		9A04932100	TR, KTA1024
Q306		9A04932200	TR, KTC3206
Q307		9A04199100	TR, 2SC4137
Q308		9A05808800	TR, KSC2690-Y
Q309		9A05808700	TR, KSA1220A-Y
Q310	⚠	9A05826500	TR, 2SC3853
Q311	⚠	9A05826400	TR, 2SA1489
Q312		9A04203000	TR, KTC1815Y
Q313/Q314		9A04203300	TR, KTC2240BL
Q315/Q316		9A04203000	TR, KTC1815Y
Q317		9A04932100	TR, KTA1024
Q318		9A04932200	TR, KTC3206
Q319		9A04199100	TR, 2SC4137
Q320		9A05808800	TR, KSC2690-Y
Q321		9A05808700	TR, KSA1220A-Y
Q322	⚠	9A05809000	TR, 2SD2059Y/KTD2059Y
Q323	⚠	9A05808900	TR, 2SB1367Y/KTB1367Y
Q324	⚠	9A05809000	TR, 2SD2059Y/KTD2059Y
R161	⚠	9A04305100	R, METAL 1W 2. 2 J
R174L/R	⚠	9A05827400	R, CEMENT 0. 27 5W J
R175L/R	⚠	9A05827400	R, CEMENT 0. 27 5W J
R180L/R	⚠	9A05827100	R, METAL 15 1W J
R303	⚠	9A04305100	R, METAL 1W 2. 2 J
R316/R317	⚠	9A05827400	R, CEMENT 0. 27 5W J
R322	⚠	9A04203900	R, METAL 1W 10 J
R340/R341	⚠	9A05827500	R, CEMENT 0. 47 5W J
R343	⚠	9A05827300	R, METAL 680 2W J
R344	⚠	9A05827200	R, METAL 390 1W J
XTAL201		9A05829800	RESONATOR, CSA2. 0MG-TF01

FRONT PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A05818500	ASS'Y PCB, FRONT [US, C, GE]
	9A05818510	ASS'Y PCB, FRONT [E, D]
	9A05812900	P. C. BOARD, FRONT
	9A04220300	SW, SKHV10910D01
	9A04945000	SPONGE, FL
	9A05814200	SWITCH ENCODER WITH NUT
CNT504	9A05830800	LEAD ASS'Y, 2P 80MM
CN501	9A05830600	LEAD ASS'Y, 8P 300MM
CN503	9A05830700	LEAD ASS'Y, 12P 300MM
CN602	9A05831100	WAFER, FPC 23P
D501-D519	9A04202800	DIODE, 1N4148M
D520	9A05809400	DIODE ZENER, UZ5. 6BSC
D521	9A04202800	DIODE, 1N4148M
FL501	9A05809500	FIP5SM6
IC501	9A05809100	CPU, CX50116-584Q
LED501	9A05827000	LED, SLR-34URC-F25
LED502	9A05827000	LED, SLR-34URC-F25
LED503	9A05827000	LED, SLR-34URC-F25
Q503/Q504	9A04203400	TR, DTC114YS
Q505	9A05809200	TR, KRA107S
Q506/Q507	9A04203400	TR, DTC114YS
Q508	9A05809200	TR, KRA107S
Q509/Q510	9A04203400	TR, DTC114YS
Q511	9A05809200	TR, KRA107S
Q512/Q513	9A04203400	TR, DTC114YS
Q514	9A05809200	TR, KRA107S
Q515	9A04203400	TR, DTC114YS
Q516	9A04203000	TR, KTC1815Y
SENSOR501	9A04218300	REMOTE SENSOR, KRM-34LI
XTAL501	9A05812400	RESONATOR, CST4. 19MGW-TF01

TUNER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A05818400	ASS'Y PCB, TUNER [US, C, GE]
	9A05818410	ASS'Y PCB, TUNER [E, D]
	9A05813000	P. C. BOARD, TUNER
	9A04305300	GROUND PLATE, 1P
	9A04213800	TERMINAL SPEAKER, 4P
	9A04939800	JACK RCA, 3P
	9A04939000	ANTENNA TERMINAL [US, C, GE]
	9A05813600	ANTENNA TERMINAL, 4P [E, D]
CF401-402	9A05817800	FILTER, SFE10. 7MA8 [US, C, GE]
CF401-402	9A05812500	FILTER, SFE10. 7MS3GH [E, D]
CF403	9A04213200	FILTER, SFZ450B
CF404	9A04326000	FILTER, BFU450C4N
CF405	9A04213600	RESONATOR, CSB456F11
CN403	9A05813500	LEAD ASS'Y, 5P
CP401	9A05814000	WAFER, 4P

TUNER PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
CP402	9A04939200	WAFER, 5P
CP403	9A04223900	CONNECTOR, 7P
CP404	9A04200900	CONNECTOR, 2P
CP405	9A05831000	WAFER, 5P
CP406	9A05830900	WAFER, 12P
D401/D402	9A04202800	DIODE, 1N4148M
D403	9A04219000	ZENER DIODE, UZ5. 1BSB
D404/D405	9A04202800	DIODE, 1N4148M
D406	9A05826800	DIODE ZENER, UZ6. 8BSB
D407	9A04202800	DIODE, 1N4148M
D482/D483	9A04202800	DIODE, 1N4148M
D491	9A05826900	DIODE ZENER, UZ8. 2BSB
D492	9A04219000	ZENER DIODE, UZ5. 1BSB
FE401	9A05829700	FM TUNER, FTH3-505HB[US, C, GE]
FE401	9A04544100	FM TUNER, FE407-G60 [E, D]
IC401	9A04211700	IC, LM7001
IC402	9A04211800	IC, LA1266
IC403	9A04211900	IC, LA3410
IC404	9A04931500	IC, GD4066B
L401	9A04212000	COIL, AM ANT
L402	9A04212100	COIL, AM OSC
L403	9A05809800	COIL, FM-IFT
L404L/R	9A04212200	COIL, MPX 19KHZ
L405	9A04542000	INDUCTOR, 20. 8MH [E, D]
L406	9A04212500	COIL, AM IFT
L481	9A04200100	COIL INDUCTOR, 0. 5MH
Q401	9A04214800	TR, KTC1923Y
Q402/Q403	9A04203300	TR, KTC2240BL
Q404-Q406	9A05809200	TR, KRA107S
Q408	9A05809200	TR, KRA107S
Q409L/R	9A04203000	TR, KTC1815Y
Q410	9A04221900	TR, KTA1015Y
Q411	9A04203000	TR, KTC1815Y
Q412	9A04221900	TR, KTA1015Y
Q413	9A04932400	FET, 2SK117Y
Q414	9A04203000	TR, KTC1815Y
Q415/Q416	9A04203400	TR, DTC114YS
Q481	9A04203000	TR, KTC1815Y
Q492	9A04203000	TR, KTC1815Y
R484	⚠ 9A04203900	R, METAL 1W 10 J
TC401	9A04213000	C, TRIMMER 20P
TC402	9A04212900	C, TRIMMER 10P
VD401-402	9A04211600	DIODE, VARACTOR KV1236Z
VR401-402	9A05810400	VR, SEMI FIXED 50K(B)
VR403	9A05810300	VR, SEMI FIXED 200K(B)
XTAL401	9A05829900	X-TAL, 7. 2MHZ

POWER SW PCB ASSY

REF. NO.		PARTS NO.	DESCRIPTION
		9A05815700	ASS'Y PCB, POWER S/W
		9A05812700	P. C. BOARD, POWER S/W
		9A04805600	JACK MIC
CN403		9A05813500	LEAD ASS'Y, 5P
CN502		9A05830000	LEAD ASS'Y, 2P 350MM
C507	⚠	9A05811800	C, CERAMIC 0.0047UF 400V
D508		9A04932000	IC, KA7806
SW501	⚠	9A05831200	SWITCH PUSH, POWER

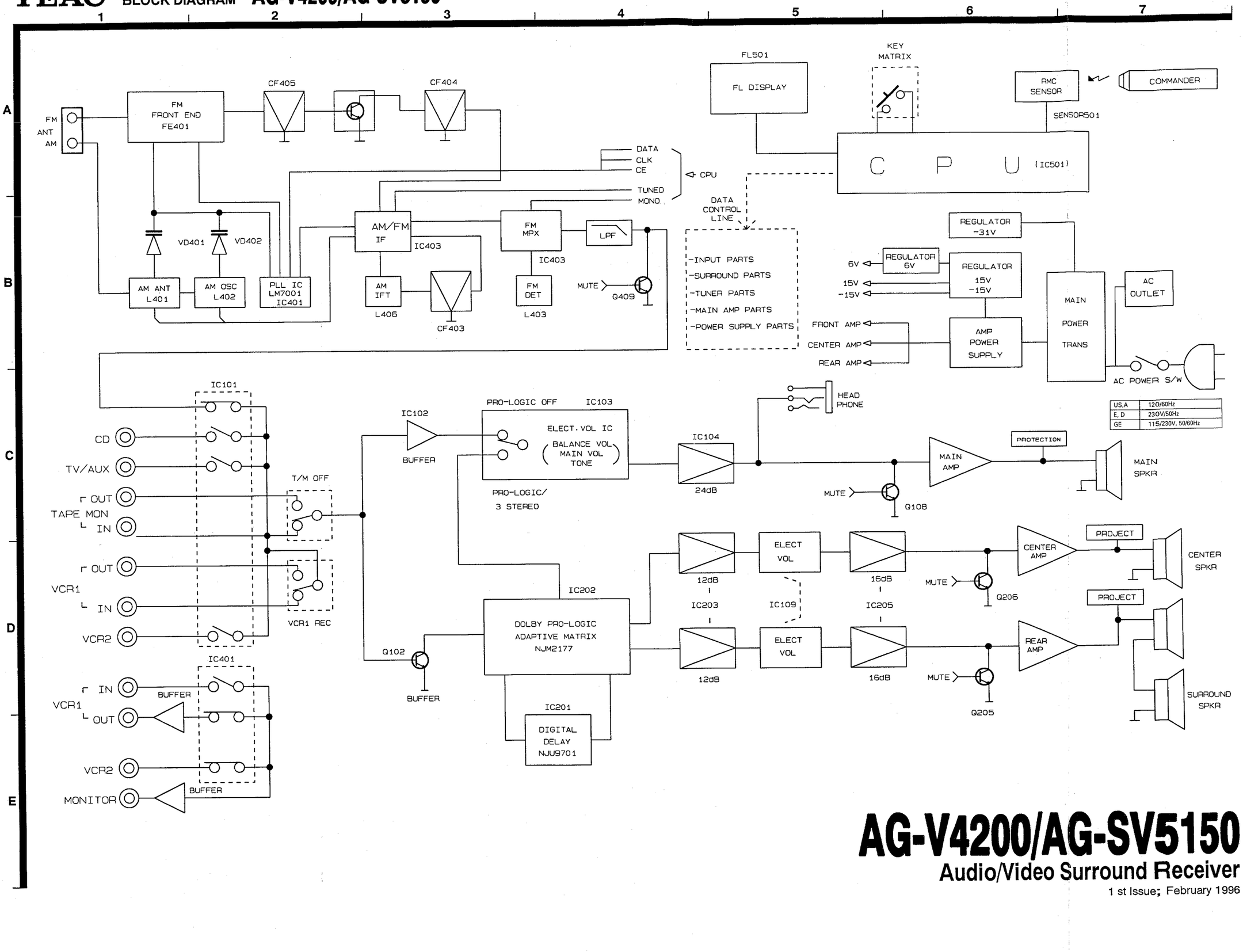
POWER PCB ASSY

REF. NO.		PARTS NO.	DESCRIPTION
		9A05839500	ASS'Y PCB, POWER [US, C]
		9A05839510	ASS'Y PCB, POWER [E, D]
		9A05839520	ASS'Y PCB, POWER [US, GE]
		9A05812800	P. C. BOARD, POWER [US, C, E, D]
		9A05817900	P. C. BOARD, POWER [GE]
		9A04202500	HEAT SINK, REG TR
	⚠	9A04544800	OUTLET [E, D]
	⚠	9A05819100	OUTLET, 1P [US, C]
	⚠	9A04544900	VOLTAGE SELECTOR [US, GE]
		9A04217900	FUSE CLIP
		9A04226900	PIN SOLDER
CP501		9A05813900	WAFER, LV 3P [US, C, E, D]
CP501		9A05818100	WAFER, LV 2P [GE]
CP502		9A04227000	CONNECTOR, 2P [US, C, E, D]
CP502		9A04227100	CONNECTOR, 4P [GE]
CP503		9A04200800	CONNECTOR, 3P
CP504		9A04327500	CONNECTOR, 9P
CP505		9A04201200	CONNECTOR, 6P
D501/D502		9A04203500	DIODE, 1N4002
D503/D504		9A04203700	ZENER DIODE, UZ15.0BSC
D505		9A05809400	DIODE ZENER, UZ 5.6BSC
D506		9A04203700	ZENER DIODE, UZ15.0BSC
D507		9A05809300	DIODE ZENER, UZ12.0BSC
D509		9A04219000	ZENER DIODE, UZ 5.1BSB
D510		9A04202800	DIODE, 1N4148M
F501	⚠	9A04545300	FUSE, SB T3.15/250V [US, GE]
F501	⚠	9A04946400	FUSE, T1A 250V [E, D]
F502	⚠	9A04194700	FUSE, SB 3.5A 125V [US, C, GE]
F502	⚠	9A05815900	FUSE, T2A 250V [E, D]
IC501	⚠	9A04932000	IC, KA7806
P1/P2		9A05813700	PIN SOLDER
Q501		9A04203400	TR, DTC114YS
R501	⚠	9A05810000	R, METAL 330 1W J
R504	⚠	9A05809900	R, METAL 100 2W J

VIDEO PCB ASSY

REF. NO.	PARTS NO.	DESCRIPTION
	9A05818600	ASS'Y PCB, VIDEO [US, C, GE]
	9A05818610	ASS'Y PCB, VIDEO [E, D]
	9A05813100	P. C. BOARD, VIDEO
	9A05814100	JACK RCA, 3P GOLD
CP601	9A04939400	WAFER, 3P ANGLE

TEAC BLOCK DIAGRAM AG-V4200/AG-SV5150

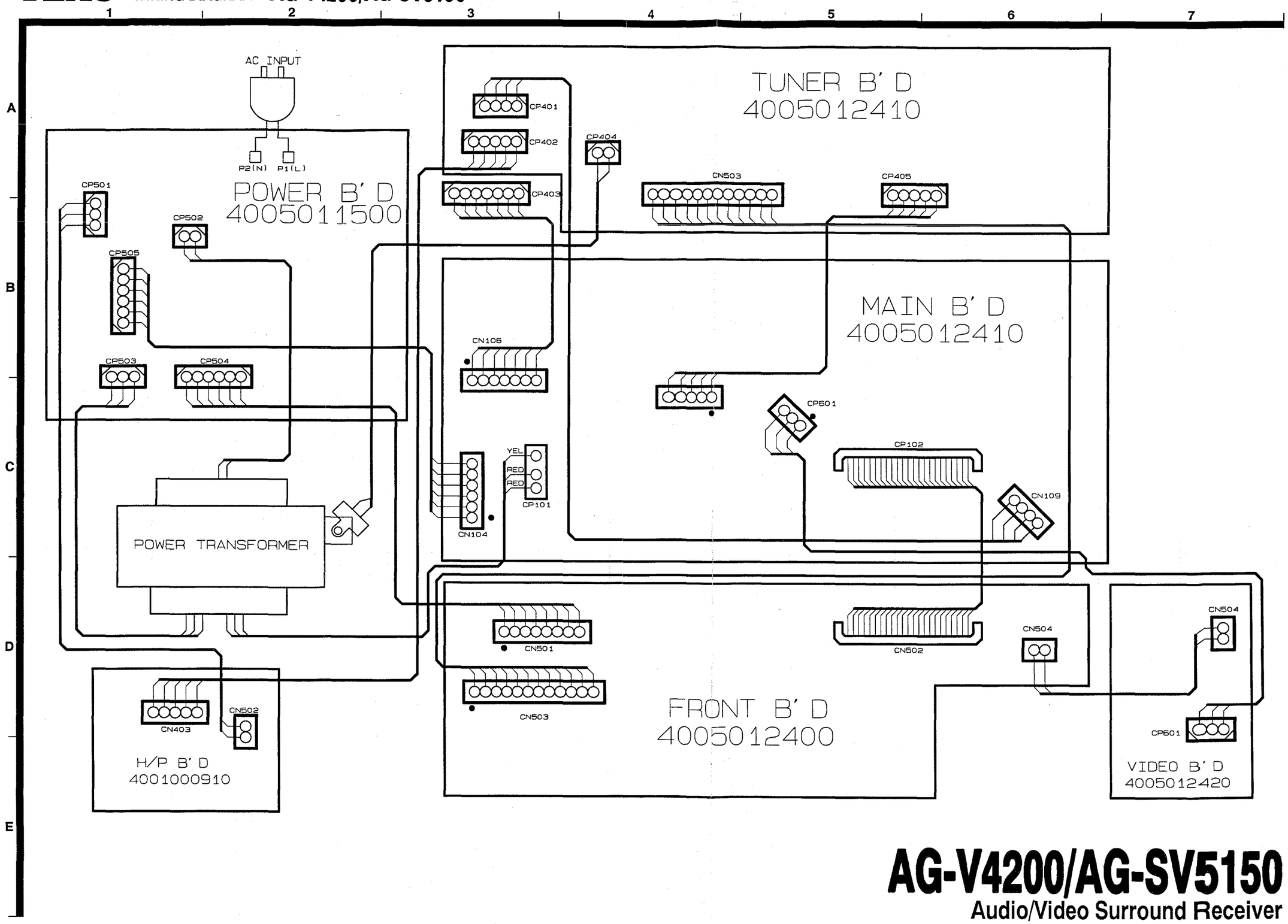


AG-V4200/AG-SV5150

Audio/Video Surround Receiver

1 st Issue; February 1996

TEAC WIRING DIAGRAM AG-V4200/AG-SV5150

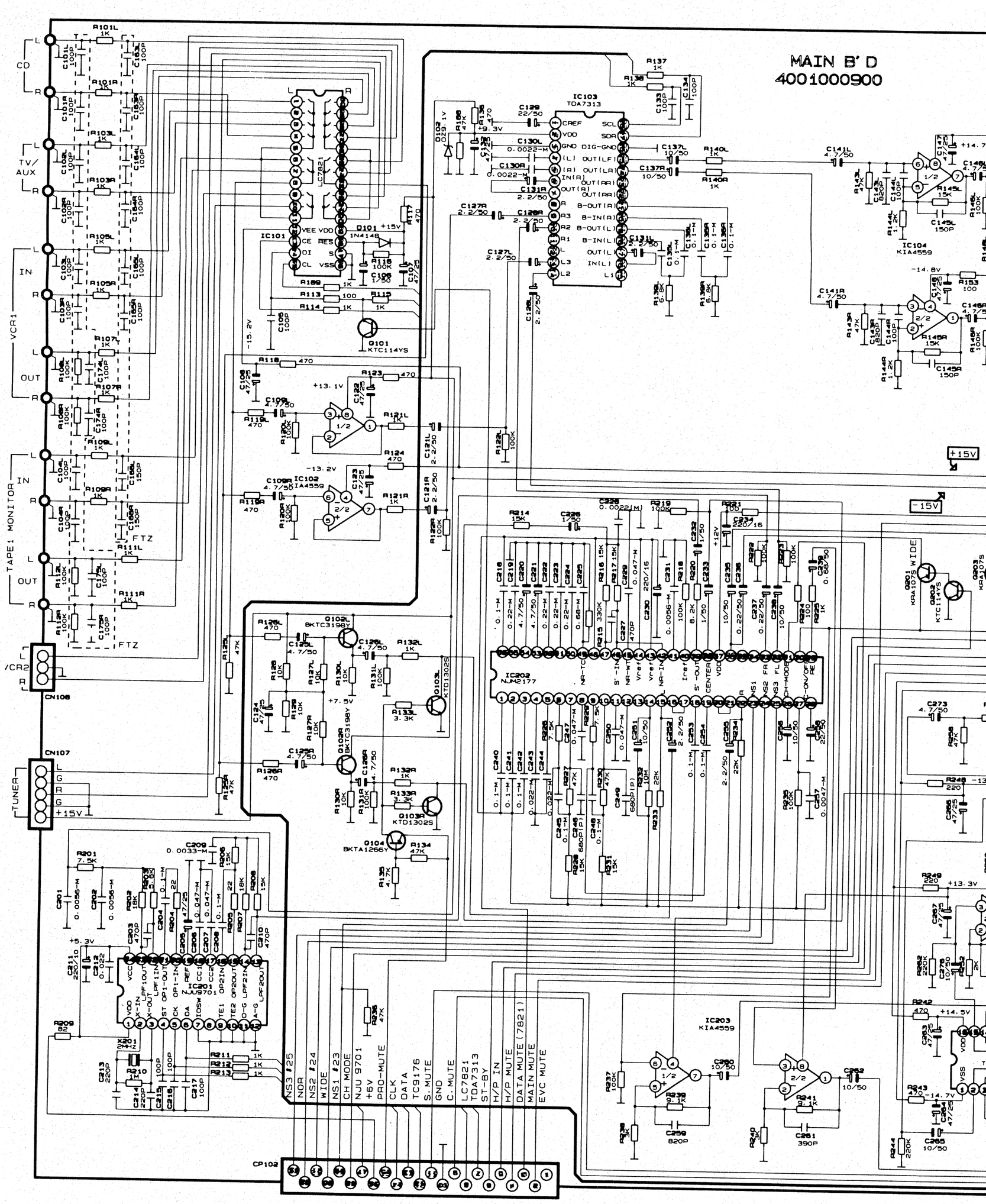


AG-V4200/AG-SV5150

Audio/Video Surround Receiver

1 st Issue; February 1996

MAIN B'D
4001000900



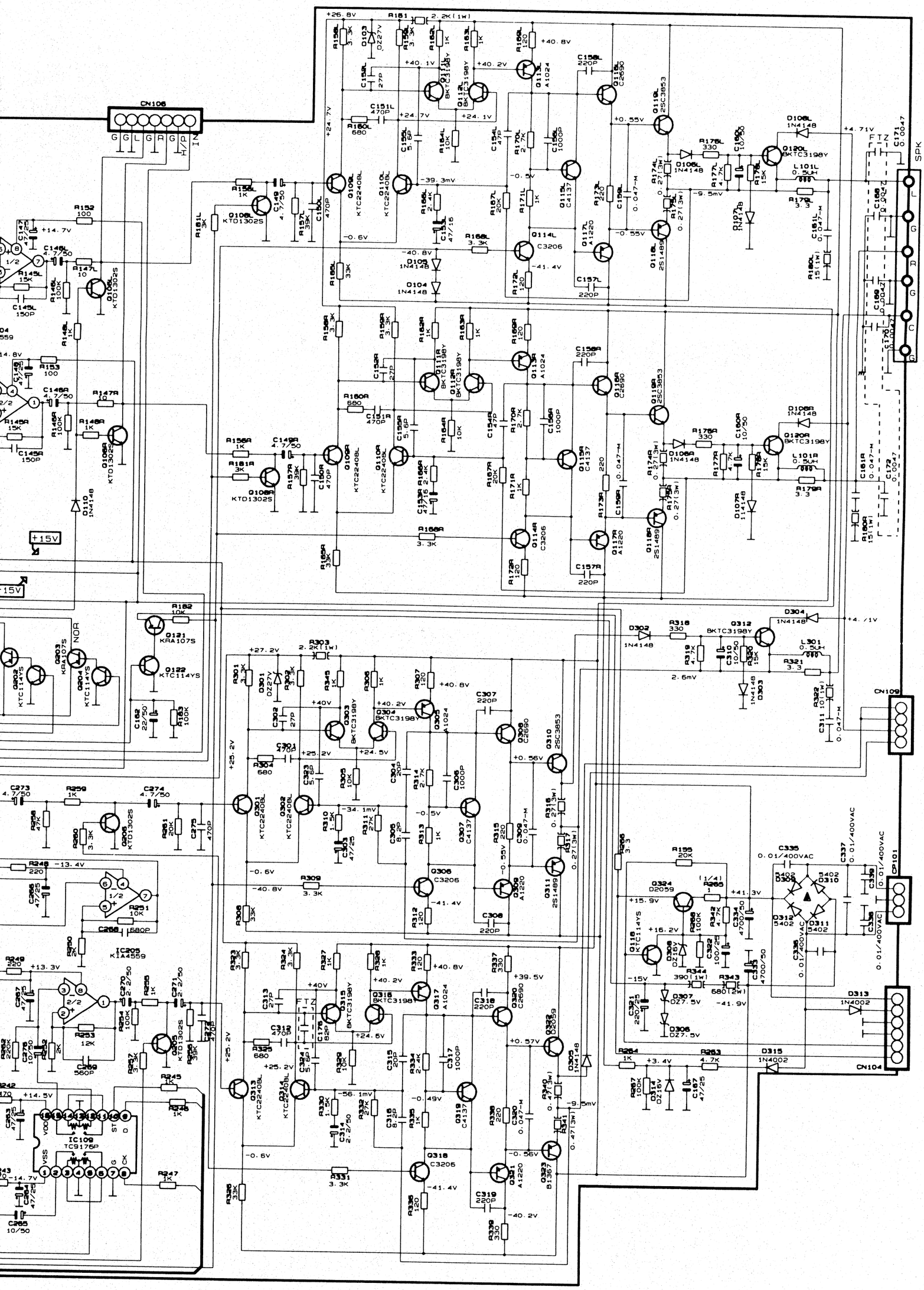
INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

NOTES:

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3. ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

US	U.S.A.
GE	GENERAL EXPORT
E	EUROPE
D	U.K.
A	AG-SV5150 (U.S.A.)



AG-V4200/AG-SV5150

Audio/Video Surround Receiver

1 st Issue: February 1996

TUNER B' D 4005012410

	R402	R401
US, A, GE	OPEN	JUMPER
E, D	100K	56K

FE401 FM-FRONT-END
D: FTH3-505HB
D: FE407-G06

IC402 LA1266G
IC401 LM7001
IC404 GD4066B
Q401 KTC1923Y
Q402 KTC2240BL
Q403 KTC2240BL
Q404 KRA107S
Q405 KRA107S
Q406 KRA107S
Q407 KRA107S
Q408 KRA107S
Q409 KTC3198Y
Q409R KTC3198Y
Q410 BKTA1266Y
Q411 BKTC3198Y
Q412 BKTA1266Y
Q413 2SK117
Q414 BKTC3198Y
Q415 DTC114YS
Q416 DTC114YS
D401 1N4148
D402 1N4148
D404 1N4148
D405 1N4148
D407 1N4148
D403 5.1V-B
D406 6.8V-B
D492 5.1V
L401 AM-ANT
L402 AM-OSC
L403 FM-IFT
L405 20.8mH
L406 AM-IFT
L404LMPX
L404RMPX
SY1 SFZ450B
CF401 SFE10.7M
CF402 SFE10.7M
CF403 SFZ450B
XTAL401 7.2MHz
VD401(1/2) KV1236Z
VD402(2/2) KV1236Z
EX1 300 OHMS 75 OHMS
AM-LOOP-ANT
VCR1 IN / OUT
VCR2 VIDEO L R
MON
TO CH SND
FTZ
TO FRONT B' D
TO MAIN B' D
CP403
CP402
CP406
CP405
CN503
TO FRONT B' D
TO MAIN B' D
LED501 ST/BY SLR-34URC-70F-085
LED502 DOLBY PRO LOGIC SLR-34URC-70F-085
LED503 3-STEREO SLR-34URC-70F-085

VIDEO B' D 4005012420

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US	U.S.A.
GE	GENERAL EXPORT
E	EUROPE
D	U.K.
A	AG-SV5150 (U.S.A.)

NOTES:
1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
2. Capacitor values are in microfarads (p=picofarads).
3. ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

	R404	C429	C450/451
US, A, GE	220	120P	33P (CH)
E, D	–	270P	22P (CH)

	CF 404/405	C414	L405	C415	C417/420	R466
US, A, GE	10.7 MA8	–	–	–	390P	27K
E, D	10.7 MS3	68P	20.8 mH	150P	270P	47K

SECTION	STEP	R516/517	R530/531
US, A, GE	100K 10K	10K	–
E, D	50K 9K	–	10K

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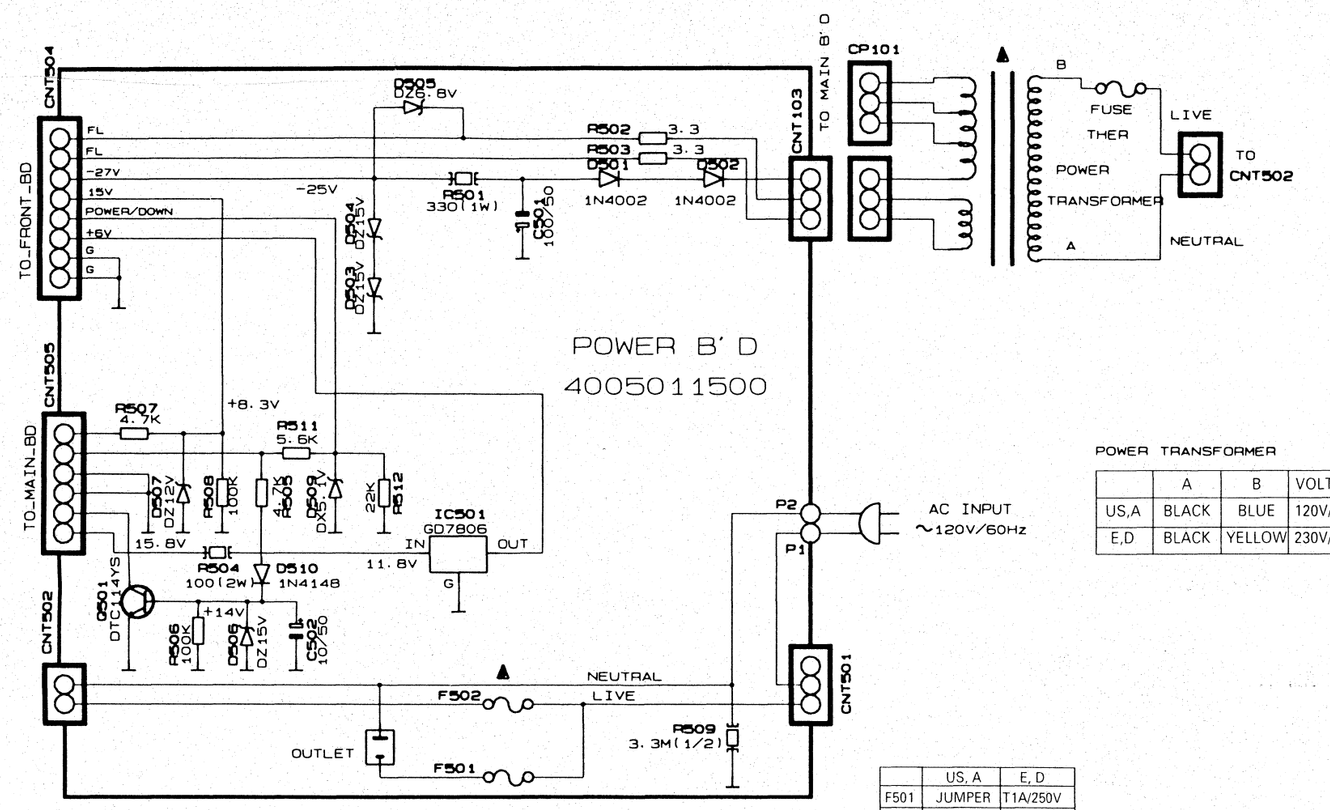
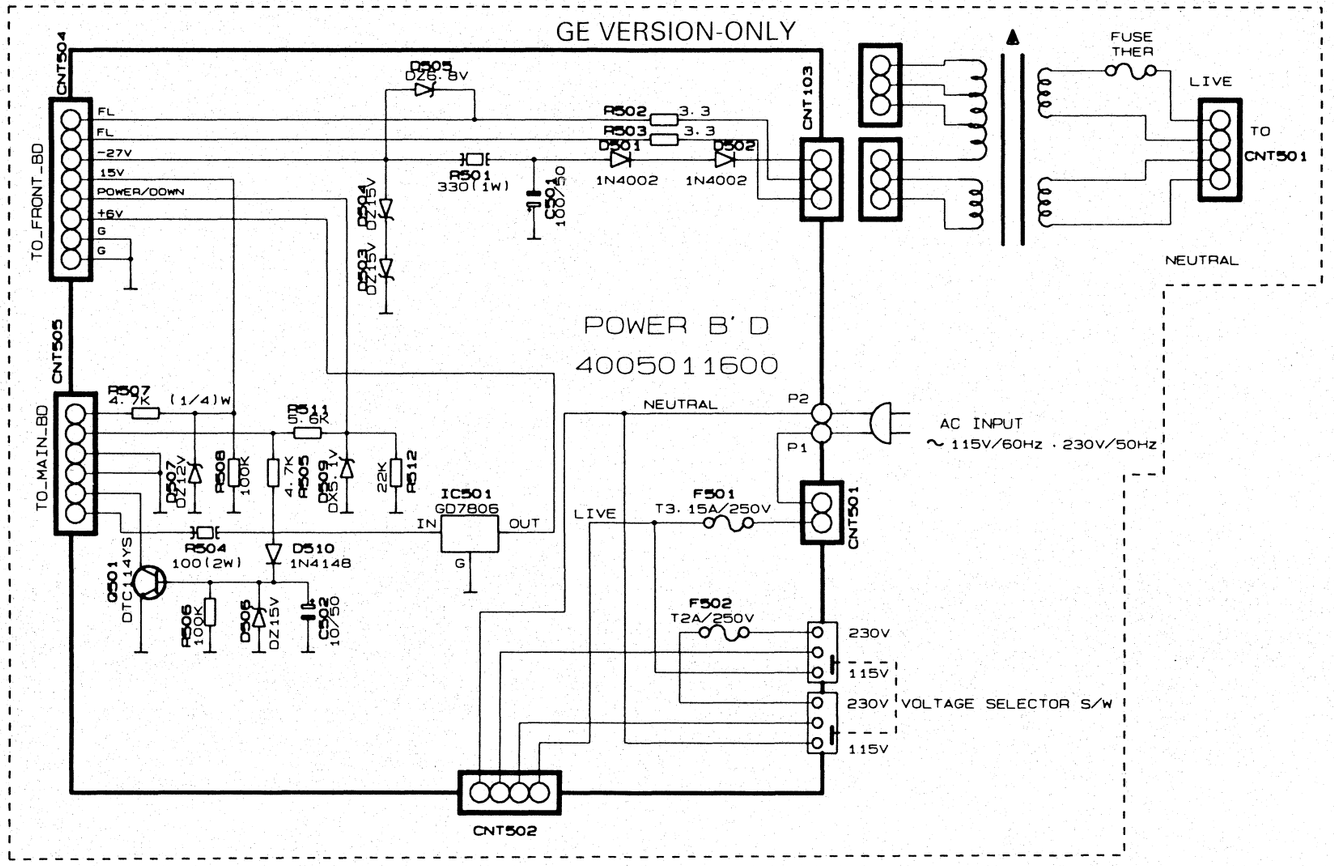


POWER TRANSFORMER

	A	B	VOLTAGE
US,A	BLACK	BLUE	120V/60Hz
E,D	BLACK	YELLOW	230V/50Hz

	US, A	E, D
F501	JUMPER	T1A/250V
F502	SB3.5A	T2A/250V
R509	3.3M(1/2W)	OPEN



INSTRUCTIONS FOR SERVICE PERSONNEL

BEFORE RETURNING APPLIANCE TO THE CUSTOMER, MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT.

NOTES:

1. Resistor values are in ohms (k=kilo-ohms, M=megohms).
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3. ⚠ Parts marked with this sign are safety critical components. They must always be replaced with identical components-refer to the appropriate parts list and ensure exact replacement.

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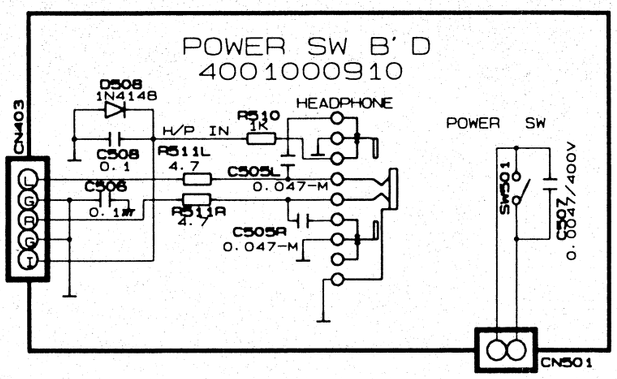
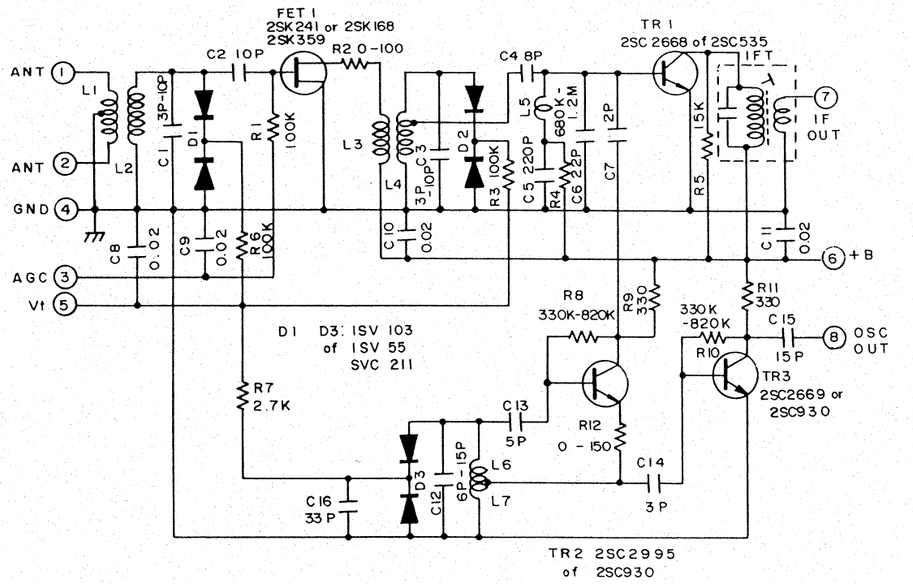
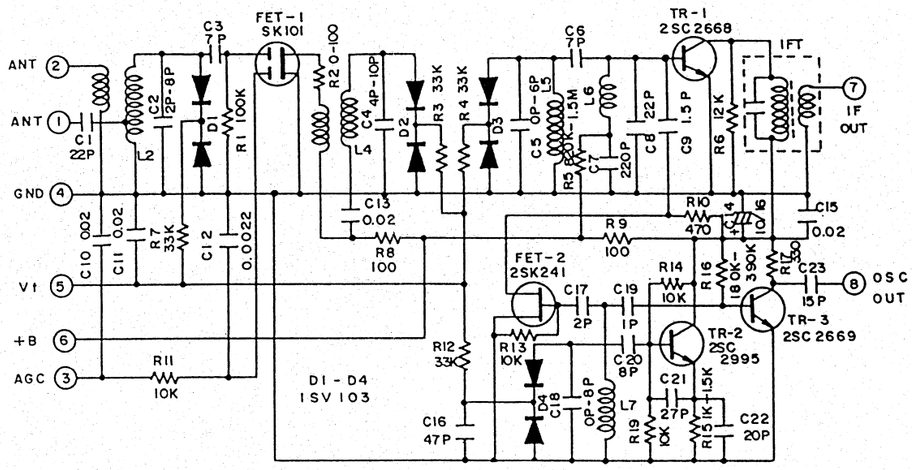


	C506	C505L	C505R
E, D	OPEN	0.047-M	0.047-M
US, A, GE	0.1(C)	OPEN	OPEN

FRONT-END : FE401 (FTH3-505H)



FRONT-END : FE401 (FE407-G60) "D" and "E" Version Only



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7 INCLUDED ACCESSORIES

INCLUDED ACCESSORIES

REF. NO.	PARTS NO.	DESCRIPTION	REMARKS
	9A05437800	OWNER'S MANUAL, AG-V4200(E/F)	
	9A05437900	OWNER'S MANUAL, AG-SV5150(E/F)	
	9A05438000	OWNER'S MANUAL, AG-V4200(G/I)	
	9A05815800	ASS'Y COMMANDER	
	9A04328200	BATTERY	
	9A04546300	FM ANT [US, C, GE]	
	9A04544300	FM ANT [E, D]	
	9A04324100	ANTENNA, AM LOOP [US, C, GE]	
	9A05809600	ANTENNA, AM LOOP [E, D]	
	9A05813800	MATCHING TRANS.	